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Traffic Counts

The Office of Transportation Data (OTD) at the Georgia Department of Transportation (GDOT) collects traffic data using various devices at short duration count stations (portable), continuous count stations (CCS or permanent), and Weigh-In-Motion (WIM) stations. The primary purpose of collecting this data is to support the annual Highway Performance Monitoring System (HPMS) report required by the Federal Highway Administration (FHWA) and support GDOT operations.



Short Duration Count Stations (Portable)

Throughout Georgia, there are approximately 27,000 short duration count stations. Each year, a portable traffic collection device is placed at approximately 9,000 of these stations. For a 48-hour period, these devices count and, in some cases, classify the traffic that passes by the station.

Continuous Count Stations (CCS or Permanent)

Throughout Georgia, there are approximately 230 continuous count stations. A permanent traffic collection device is installed at each of these stations. These devices count and classify traffic 7 days a week, 24 hours a day, 365 days a year. Every effort is made to collect the traffic counts during typical travel conditions and not on holidays or weekends.



Weigh-In-Motion (WIM) Stations

Throughout Georgia, there are approximately 90 portable WIM stations, 10 permanent WIM stations on Interstates, and 2 permanent WIM stations on other major roadways.

Each year, a portable traffic collection device is placed at approximately 30 of these portable WIM stations.

A permanent traffic collection device is installed at each of the permanent WIM stations.

WIM technology is used to measure vehicle counts, axle and gross weight, vehicle classification, and speed data. WIM data is used for pavement and capacity studies, for enforcement and inspection purposes, and for analysis of truck transport practices.



What is a traffic count?

Traffic counts represent the total volume of vehicles that pass by a traffic counting station in a typical 24-hour period. Traffic counts are conducted on a representative sample of State Routes, county roads, and city streets across Georgia

What are traffic counts used for?

Traffic counts are used to study traffic patterns and flows for various purposes.

- ❖ GDOT Planners and other officials use traffic count data to make informed decisions regarding the planning and designing of new roads, upgrading existing roads, and routing traffic such as truck routes.
- ❖ The GDOT Office of Materials and Testing (OMAT) uses truck traffic percentages and AADT counts to develop factors that assess the deterioration of pavement, as well as develop pavement design for road resurfacing projects.
- ❖ The GDOT Office of Traffic Operations uses the AADT data to calculate crash rates and address safety issues.
- ❖ The Federal Highway Administration (FHWA) requires every state to submit an annual Highway Performance Monitoring System (HPMS) report. Traffic count data is a critical component of this report, with the complementary physical road characteristics and other road-related data. This report is used in the biennial report to Congress, and to support Federal funding for State highway and road projects.

Why is a black tube stretched across the street?

The black rubber tube is part of the short duration count (portable) traffic collection device and is attached to the device. For 48 hours, the device records the amount of traffic that crosses the rubber tube.



Why are traffic counts conducted?

The state and federal governments require traffic counts on various streets and roads in the state to:

- ❖ Calculate annual Vehicle Miles Traveled (VMT)
- ❖ Identify peak travel hours on roads or within areas of study, such as a city or county
- ❖ Study vehicle movement
- ❖ Determine funding needs and pavement types for road resurfacing
- ❖ Evaluate road widening and improvement needs
- ❖ Assess traffic light or sign needs due to traffic changes
- ❖ Inform the National Household Travel Survey on driving habits
- ❖ Analyze freight movement

On which streets/roads are traffic counts conducted?

Depending on the road type (Interstate, State Route, county road, or city street) and location, traffic is counted on selected roads every 1 to 6 years.

How are traffic counts conducted?

Traffic counts are collected at continuous count stations (CCS or permanent), short duration count stations (portable), and Weigh-In-Motion (WIM) stations.

- ❖ A permanent traffic collection device assembly is installed at continuous count stations (CCS or permanent) and permanent WIM stations. The assembly contains a permanent traffic collection device installed beside the roadway and sensors installed in the roadway pavement.
- ❖ A portable traffic collection device assembly is set up at short duration count stations (portable) and portable WIM stations. The assembly contains a portable traffic collection device set up beside the roadway and rubber tubes laid across the top of the roadway pavement.